

the RARS

Exciter

Raleigh Amateur Radio Society



Worldwide Friendship

March, 2001
Number 365



Hungry?

Join Us at the
RARS Dinner
every 4th Tuesday

Next RARS Meeting:
Tuesday, March 6th

- **AWARDS** -
& Ice Cream

The Exciter

The **Exciter** is the monthly newsletter of the Raleigh Amateur Radio Society. It is available in both printed and electronic form. The printed version is mailed to members just before each club meeting. The electronic form, in Adobe Acrobat PDF format, is e-mailed about a week earlier.

We solicit both articles and advertising. The deadline for submissions is the 15th of the prior month. Contact the Editor.

The views contained in the Exciter are those of the individual authors, and are not necessarily the views of the Editor, or the Raleigh Amateur Radio Society.

The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the Amateur Radio community in the greater Triangle area. In 1999, we incorporated a new RARS, and obtained 501(c)(3) Non-Profit tax status.

The objectives of the club are to promote worldwide friendship through Amateur Radio; to be of public service by providing radio communications in times of disaster, emergency, or civic need; to educate members in radio technique; and to provide training classes to assist in obtaining Amateur Radio licenses.

Anyone interested in Amateur Radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18.00 per year (from July 1 through June 30). Additional immediate family members pay \$5.00 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12.00 per year. Dues for non-licensed Associate members are \$9.00 per year.

Applications for membership may be obtained from the treasurer, or the RARS web site (www.rars.org).

Officers

President	Tim Nicholson KF4RTX 501-7746 kf4rtx@arrl.net
Vice-President	Bob Breyer K1RCB 848-7761 breyer@ix.netcom.com
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Info

Repeaters:

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Web Site:

<http://www.rars.org>

President's Corner

Tim Nicholson KF4RTX

SkywarnClassPublicServiceHamfest...

What a great program Thomas Babb KF4JKQ and George Lemmons put on at the February meeting! I always enjoy listening to George talk about weather. Since March is upon us, we can't be far from the possibility of severe weather. The Skywarn program served to remind us all about what we should look for and how to properly report it. Thanks to Thomas and George for a great program!



I am looking forward to meeting the new class of prospective hams who are taking the RARS license class. Gary and Jeff have done a great job in the past, and I know this will be another wonderful class. If you get an opportunity, be sure to drop by one of the classes and say hello to the new folks.

Public service is starting to heat up. Have you volunteered for an event? If you are new to public service, there are two great opportunities on March 31st and April 1st. These events are relatively small and provide an excellent opportunity to see how public service events operate. Details are in public service section of the **Exciter**. There are several other events scheduled, so be sure to stay tuned to the **Exciter**, the RARS website (www.rars.org), club meetings and the nightly 8 o'clock nets on 146.64 for details about these events.

There is also another event of some significance coming up on the 8th of April that needs volunteers. Yes, it's time once again for RARSFest. This year, we have a new hamfest chairman, Hank Montgomery K4HM, and he needs your help! There's room for you in just about all areas. This is your opportunity to help your club. Last year we had several people working multiple shifts because there weren't enough volunteers to cover the entire hamfest. I don't want to see that this year (unless someone legitimately volunteers for multiple shifts). There are almost 300 members of our club. There is no reason we can't have more than enough volunteers to cover all the shifts. If you are interested in volunteering, contact Hank, the appropriate committee chair, or me. A list of the committee chairs can also be found on the website.

73!

Tune In The RARS NEWS HOUR

- Newsline
- ARRL Audio News
- R.A.I.N Report

Sunday Nights following the
RARS 8:00 Net on 146.64

Sunday, April 8th **RARSFest** **2001** **NEEDS YOU!**

Help Wanted:

Must have pleasant disposition and be willing to work for the good of RARS. No resume required or references required. Will train. Please Contact the following for information.

Chairperson	Hank Montgomery K4HM	Setup	Bernard Blackmon KC4UPX
Co-Chair	Tim Nicholson KF4RTX	Stage	Gary Pearce KN4AQ
Treasurer	Glenn Clarey WA4LHE	Admissions	Eric Haywood KG4CXW
Co-Treasurer	Bob Rinn N4VQN	Comm Center	David Fix N4YTO
Program	Woody Winstead KJ4SO	Security	Tom Swanson N4IZE
Fairgrounds	Chuck Littlewood K4HF	Teardown	Dave Thomas K4SAN
ARRL Booth	Chuck Littlewood K4HF	RARS Table	Bob Breyer K1RCB
Vendor/Dealers	Chuck Littlewood K4HF	Incentive Prize	Cliff Broughton KF4RDP
Publicity	Gary Pearce KN4AQ	Social	Mary Jo Littlewood
Meetings	Chuck Littlewood K4HF	Contests	Rick Merkle KA3PSK

Public Service Cranks Up for Spring

Got Cabin Fever? Winter Blues and Blahs? Shake'em off with a few days out in the beautiful spring weather, HT in hand, helping out some worthwhile charities and playing ham radio all day! Here's the lineup so far:



Four MS Walks - March 31/April 1

Saturday, March 31, walks in Cary and Durham.

The Cary walk begins at Waverly Place and runs through Regency Park. Contact Denyse KG4CXR to volunteer: jwalter@nc.rr.com or 468-5358

The Durham walk starts at Glaxo and runs through RTP. Contact Donna KG4IYV: d.w.haywood@att.net or 596-9575

And Sunday, April 1, walks in Chapel Hill and Raleigh.

The Chapel Hill walk starts at the Eastgate Shopping Center, and winds through the UNC campus. Contact Liz KF4UQZ: kf4uqz@cs.com or 266-3605

The Raleigh walk starts at Broughton High School and runs through north Raleigh. Contact Bob K1RCB: breyer@ix.netcom.com or 848-7761

ADA Tour de Cure May 5/6 is 175 Mile Bike Tour!



The American Diabetes Association has announced a new event, very similar to the MS-150 Bike Tour held in the fall. This **Tour de Cure** will run 175 miles from Zebulon to Manteo, with an overnight stop in Williamston, and will need lots of hams to help out. Gary KN4AQ is asking all the hams and clubs in northeast NC to participate. Contact Gary KN4AQ:

kn4aq@arri.net or 380-9944

CCFA Run for Research June 2nd

CCFA
Crohn's & Colitis Foundation
of America, Inc.



This run also begins at Glaxo in RTP. It's the only one that lets you sleep in, as it starts at 5 pm. Contact Joe WA2UZO: wa2uzo@arri.net

Details on all the events on the web at:
www.rars.org/public-service

March Meeting: Awards & Ice Cream

The March 6th RARS meeting is the annual awards presentation. Club members who put in effort "above and beyond" will be recognized, while the rest of us will enjoy cake and ice cream to celebrate another year of RARS fun and service

ON THE COVER

The RARS dinner continues to grow! More and more club members have been stopping by on the 4th Tuesday for food and fellowship. There's nothing formal about the RARS dinner (though the crew in the cover picture did pitch in to fold and label the February **Exciter**).

The RARS dinner is an offspring of the RARS Crystals, an association of the women in RARS, both licensed and unlicensed. Over the years, that group has existed, sometimes more formally, sometimes less. It was all-female until former RARS President KA3PSK broke the sex barrier a few years ago. More and more men showed up for the dinner-meetings, until eventually things evolved into a dinner (and no meeting) for any club member (or any ham... we're not that exclusive) and family member.

Fat Daddy's seems a popular location, but anyone willing to arrange another location will be considered. Keep in mind that the size of the group is hard to predict. RSVPs are not practical. Contact Lynn KO4QH with your idea (but don't expect her to do the legwork for you): 787-1111.

Cell Phone Bill Introduced in NC House

Rep. Mary McAllister (D-Cumberland) has introduced a bill in the North Carolina House that would limit cell phone use in motor vehicles while in motion. House Bill 62 would give handheld cellular users one minute to complete a call, or make a safe and legal stop to continue the conversation.

By specifically limiting "handheld" cellular phones, the bill would permit calls conducted with headsets or other hands-free systems.

AMATEUR RADIO EXEMPT?

The bill includes very specific language limiting it to a "radio-link telephone that provides dial tone access to a portable, mobile, or fixed location for which a charge is levied." Specific exemptions are provided for "any public safety, emergency service, or law enforcement agency."

Amateur Radio operators are not specifically exempted, but our operation is clearly not targeted. Nevertheless, to avoid any confusion, Amateurs across the state have requested a specific exemption.

Does the bill have a chance? Cell phone restrictive bills have had mixed results across the country so far, but this bill's unique "one-minute grace period" may help it though the legislature.



HOUSE BILL 62

Short Title: Use of Cellular Telephones.
Sponsors: Representatives McAllister; Fitch, Oldham, and Adams.
February 7, 2001

**A BILL TO BE ENTITLED:
AN ACT TO PROHIBIT CERTAIN USES OF CELLULAR TELEPHONES BY AN OPERATOR OF A MOTOR VEHICLE.**

The General Assembly of North Carolina enacts:

SECTION 1. Article 3 of Chapter 20 of the General Statutes is amended by adding a new Part to read:

"Part 11C. Cellular Telephones.

"§ 20-175.10. Use of cellular telephones.

(a) Except as otherwise provided in this section, a person shall not operate a motor vehicle on the streets and highways of this State while using a handheld cellular telephone.

(b) An operator of a motor vehicle shall have a one-minute grace period on the receipt and transmission of cellular telephone calls. If an operator's cellular telephone call exceeds or the operator anticipates that a cellular telephone call will exceed the one-minute grace period, the operator shall either terminate the telephone call or pull the motor vehicle off the street or highway and park the motor vehicle in a manner that does not violate any laws of this State.

(c) The use of a handheld cellular telephone by an operator of a motor vehicle is not a violation of this section if the operator uses the telephone to call a 911 emergency number.

(d) For purposes of this section, "cellular telephone" means a radio-link telephone that provides dial tone access to a portable, mobile, or fixed location for which a charge is levied.

(e) This section shall not restrict the use of a radio-link telephone by any public safety, emergency service, or law enforcement agency.

(f) Violation of this section is an infraction."

SECTION 2. This act becomes effective December 1, 2001.

KG4HDT Appointed AEC for State EOC



KG4HDT at the State EOC VHF Station. John will be in charge of operation at the station.

John Guerriero KG4HDT has been appointed Assistant EC for Wake County, in charge of the Amateur Radio Station at the State EOC. John says the job includes addressing procedural issues, training station operators, and organizing ARES volunteers to man the EOC in the event of an emergency. In addition, the position requires participation in local and state wide ARES related functions such as meetings and nets. Another important aspect is working together with other Wake Co. AECs on station improvements and general emergency preparedness.

"When I first became involved in ARES, I realized that living so close to the State EOC allowed me to help provide support for all counties of this great state," John said. "I was glad to accept the AEC/EOC position, and hope the support of the amateur community continues. I know that being an amateur radio operator is a privilege and providing emergency communications helps to justify this privilege."

KG4FJA Resigns As Wake EC

Gary Pearce KN4AQ

Wake County ARRL Emergency Coordinator Ron Ford KG4FJA resigned from that position effective Monday, February 12. In an e-mail to Section Emergency Coordinator David Fleming KE4JHJ, Ron cited personal reasons for resigning. He said that he would not be able to devote the time necessary to fulfill the duties of EC, and added "but I feel the current organizational structure in Wake County is sound and will continue to operate until you find a replacement."

Ron told me that he will not be leaving ham radio - we'll continue hearing him on the air, and he'll continue to support ARES when he can. He is very proud of the AECs and others who have worked with him building Wake ARES.

The next step for Wake ARES will be to identify an EC candidate. The position of EC is an appointment normally made by the Section Manager (John Covington W4CC, Charlotte). The SM can delegate that authority to his Section Emergency Coordinator (David Fleming KE4JHJ, Winston-Salem), and John has done that, so David will make the appointment.

The Wake Assistant EC's (Bill KD4ISF, Mark N4MQU, Tom N4TAB and John KG4HDT) assure everyone that Wake ARES is not going to be dormant. The net is continuing to operate at 9 PM on Thursdays on 146.88, and they will be working to identify candidates for the EC position.

Wake ARES has had bad luck with ECs over the past decade. After Tom Klimala KM4LB left the position, several appointees passed in and out of the job quickly. Jack WØUCE occupied the office briefly until business travel made it impossible for him to handle it.

John Jaskolka N4YRD then stepped in, but his company transferred him to Utah just a few months later. The EC position was vacant for a couple years, until John returned. He took the appointment again, and was again transferred, this time to Columbia, South Carolina. John once again clawed his way back to Raleigh, and is now serving on the RARS board, but he says he can't take the risk of another EC appointment, even though I have pointed out that if you extrapolate the distance between Utah on the first transfer, and South Carolina on the second transfer, a third transfer should take him no farther than Fuquay-Varina. (Actually, John's business and



Ron KG4FJA, addressing a recent meeting of Wake County ARES operators

family commitments don't leave time for the EC position.)

During the "vacant" periods, SM Reed Whitten AB4W, AEC Jerry Davis KE4TTS and an ad hoc group of hams stepped in to make sure the EOCs were covered during emergencies, but no organization or training was done.

After John's second transfer, and another year of vacancy, Matt Sickles W2BYV accepted the appointment. Matt stayed with the job nearly a year, until advancement at his company meant he would no longer have time to devote to ARES.

Matt had appointed several AEC's, and two of them, Ron Ford and Bill Ward KD4ISF put their hats in the ring for EC. Ron was appointed, and Bill continues to participate as an AEC.

Ron worked quickly to rebuild the ARES structure. Even before receiving his official appointment, he organized very last-minute ARES participation in the Shearon-Harris Nuclear Plant drill last summer. He developed the operating guidelines re-

quested by NCEM. He called on me to present several training programs, and more than 50 ham attended. The State EOC participated in several drills and one activation during the fall. And he appointed several AECs. And just before resigning, he negotiated with Wake County Emergency Management to acquire new radios for the Wake EOC. Those radios have arrived.

As a Major in the Garner Police Department, Ron knew that if an emergency struck Wake County, he would not be available to ARES for direct leadership. The AECs were appointed to take over completely in that situation. And while those plans have not been completely implemented, Wake ARES is far enough along the development path to survive this setback. The AECs are already taking their next steps.

Ron says he is not leaving Amateur Radio. We'll still hear him on the air, and he'll continue to be a resource for ARES through his experience and professional contacts in emergency management.

Thank you, Ron, for stepping in to help bring Wake County ARES back to life.

Is Being EC That Hard?

Wake County ARES has certainly had its share of trouble keeping an EC. Is the job that hard?

It shouldn't be, though a total ramp-up of an ARES operation does make a strain initially. Once things are up and running, the maintenance work is manageable. Good assistants make it easier.

In my opinion, the EC should make that their one and only job in Amateur Radio, at least in a big county like Wake. The EC shouldn't try to be club president, or Field Day chairman, etc. It probably helps to be retired, or at least flexible in work hours. But this is supposed to be a hobby, not a profession. And as always, if we all give a little, no one of us ends up having to put in more than they want to. - KN4AQ

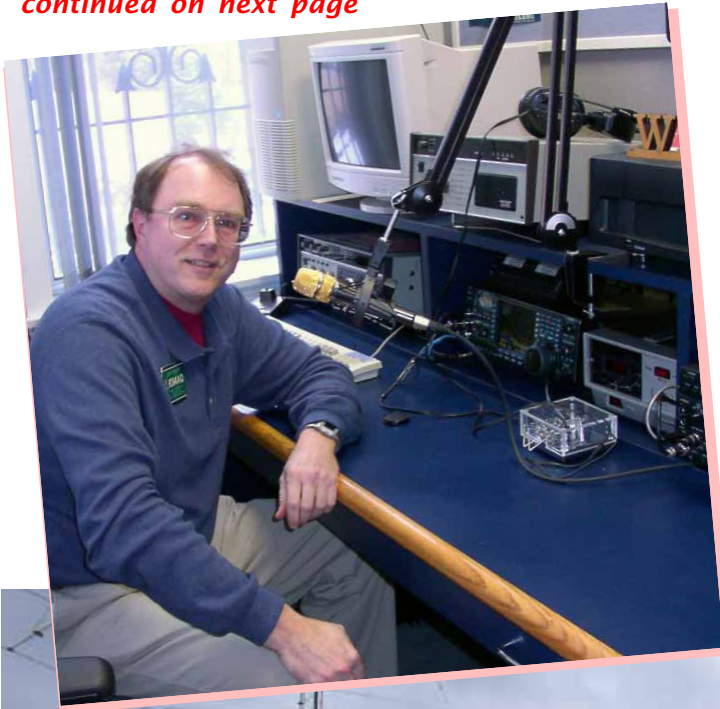
Maximum Maxim!

Gary Pearce KN4AQ

Last month, I got one of those rare thrills in Amateur Radio - the chance to operate from W1AW, the ARRL's Maxim Memorial Station in Newington, CT. I spent the day getting a VIP tour from Steve Mansfield N1MZA, the League's Legislative and Public Affairs Manager. Of course, I videotaped the tour, and I hope to make it a RARS program at a future meeting.

But a highlight of any ham's visit to HQ is sitting in as a guest operator at W1AW. This is where the code practice and bulletins are transmitted to

continued on next page



the nation and the world, on all bands with a bit over 1000 watts. But for several hours every weekday, licensed ARRL members (who remember to bring a copy of their license with them) can sit in one of the three beautiful studios, pick their band, choose from a dream selection of equipment, and get on the air, signing that famous callsign.

I fired up on 17 meters. Someone put a "spot" on the DX Packetclusters, and I was buried in pileups for several hours. I worked stations as fast as I could, but I just had to take time out to talk to students at a school demonstration in Greensboro. Too soon, the station operator had to boot me out for the next round of code practice.

Newington is a quiet suburb of Hartford, on the Interstate between New York City and Boston. If you find yourself in the area, you'll definitely want to visit. It's busier in summer, of course, but there's lots of room, so bring your license and take your seat... W1AW is waiting for you!



Facing page: KN4AQ at the controls in Studio 3, the BIG tower (and a little 65 footer behind it), and the sign at the entrance. **This page:** Studio 1, the W1AW building, and the rack of equipment used to send code practice and bulletins. **Little known fact:** W1AW has TVI/RFI problems on rare occasions... and they take care of it really quick!

Rich Wells Visits Scanner/SWL SIG

Rich Wells N2MCA is a local legend in the world of scanning and short wave listening. His web page, www.strongsignals.net, is known worldwide for equipment reviews and information about the latest state-of-the-art listening. And when Rich drops by the SWL/Scanner SIG meeting, as he did in February, it's a special treat. The picture here shows the hardware he demonstrated to the group.

The SIG, also known as the Tarheel Scanner & SWL Group, meets on the third Monday each month at the El Rodeo Restaurant, 4112 Pleasant Valley Road. This is on the left, one half-block north of Glenwood Avenue. The meetings start 7:30 pm, but come at 6:30 for dinner and fellowship.

More info (and frequency lists) on the web:
<http://home.nc.rr.com/trianglescanner>



N&O Carries Ham Story from India Earthquake

The February 5th *News & Observer* carried this story about hams providing emergency communications in India following the earthquake there. The story was written by Ramola Talwar Badam for the the Associated Press, and was carried by papers nationwide.

The story begins:

GANDHINAGAR, India (AP) — "Everything here is panicky! Everything has collapsed!" It was one of the first messages out of western India after hundreds of villages crumbled in an earthquake that killed thousands.

For four days, before telephone and mobile services were partially restored, the voices of two amateur ham radio

operators were among the quake-zone's vital links to the outside world for news about casualties and relief needs.

Looks like it works there about the same way it works here! Thanks to the N&O for picking up this story.



ARRL Adopts New Position on Morse, Increases Dues

ARRL Letter

Meeting in Irving, Texas, January 19 and 20, the **ARRL Board of Directors voted to increase membership dues from \$34 to \$39** annually for full members younger than 65, and from \$28 to \$34 for full members 65 and older. The dues hike goes into effect July 1, 2001. The last ARRL dues increase was in July 1997.

The dues increase resulted from a need to fund initiatives to expand the League's advocacy activities on behalf of Amateur Radio—including the defense of amateur spectrum--and to enhance ARRL Headquarters' abilities to serve members during a period of projected deficits. The Board okayed a \$1 greater increase for seniors in an effort to narrow the dues gap, as more and more ARRL members fall into the senior category.

At the same time, the Board approved the hiring of development and sales and marketing professionals on the Headquarters staff as part of an overall plan to augment revenues.

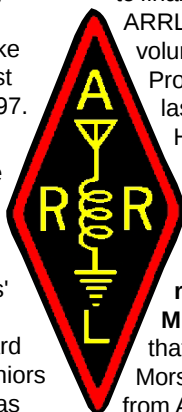
"The ARRL carries out a lot of activities that no longer can be fully funded by dues or publication sales revenues," ARRL Executive Vice President David Sumner, K1ZZ, explained. While voluntary contributions towards Amateur Radio advocacy are helping greatly, "we need to professionalize these activities if we are going to sustain

them," he said.

Sumner said putting more emphasis on voluntary contributions was "the only route to financial security" for the ARRL. Among ARRL programs that will rely heavily on voluntary contributions is "The Big Project" educational initiative proposed last year by ARRL President Jim Haynie, W5JBP.

The Board also revised its position on whether Morse code proficiency should continue to be an international licensing requirement for operation below 30 MHz. The Board approved a resolution that "recognizes and accepts" that the Morse requirement likely will be dropped from Article S25 of the international Radio Regulations at the 2003 World Radiocommunication Conference. But the Board held the line on retaining a domestic Morse requirement, saying that each country should be allowed to determine for itself whether it wants to have a Morse requirement.

The Board declared that Morse code deserves continued support as "an important operating mode" as well as in terms of spectrum and "should be retained as a testing element in the US." The resolution also calls on ARRL Headquarters staff to "develop a program designed to promote the use of Morse."



OPINION

A dues increase *and* a revision in Morse policy - both at once from the ARRL? Looks like they decided to take a double-gulp of bitter medicine, rather than spacing it out.

I can predict that either of these decisions by the ARRL Board will cost the League membership in the short term. They always take a hit when they raise dues, though I'm sure they wait until they absolutely have to do it. My recent visit to Hq in Newington convinced me they're not wasting money on lavish quarters, or expensive staff, judging by the budget-minded cars in the parking lot.

The Morse decision sounds like an artful compromise. The "HF No Code" movement has swept the world with amazing speed. To satisfy the faithful, the League *has* to recommend that the US keep a code requirement for HF. But I doubt that the FCC is going to go along. Once the World Radio Conference eliminates the requirement, I expect the FCC to drop it.

And I say... good! I've surprised myself here. I've long been a VHF no-code advocate, but considered code a worthwhile "filter" for HF. But that's all it's been for years - a filter that makes people jump through irrelevant hoops to prove they're interested enough. It has locked out potential good hams on HF as it did on VHF.

The ARRL can't say this, yet. But Techs, who have avoided League membership in droves, should join now. Because making HF code or no-code isn't really a big question for ham radio anymore. Just keeping ham radio alive is going to be the trick. And the ARRL is the organization that can and will do that.

Gary KN4AQ, Editor

Kids Get Ham Radio Closeup at Royal Rangers Presentation

Kevin Dunphy W4KJD

Take two hams, twelve teenage boys, a couple of dads, and a table full of radio-related toys, and mix them together on a Monday evening, and what do you get? Well, whatever it was, a lot of fun spilled out!

On Monday, January 22, Jeff AC4ZO and I presented a demonstration at the **Royal Rangers** meeting at Raleigh First Assembly of God on Blue Ridge Road. The small room was crowded with both people and stuff when the Rangers, having conducted their regular business in an adjacent room, filed in.

The program consisted of the usual topics – what ham radio is, who hams are, what they do, and so forth. The standard demonstrations followed as the HT's and code-practice oscillators came out. Each Ranger got the chance to send his name as Jeff copied their CW onto the board.

Then came some of the more eye-catching items. Jeff's radio-controlled airplane caught quite a bit of attention, as the boys watched the plane's control surfaces respond to the joysticks. After explaining a



AJ (center) operates W4KJD's HT as Paul (left) looks on. Photos by AC4ZO



Abdoul greets the camera as his opponent Trey braces for the Safety-Belt Tug-Of-War (always a popular event!)

little bit about tower work and its safety equipment, the boys enjoyed a couple of rounds of tug-of-war with the safety belts.

And to top off the night, the 20-meter beam was pointed westward and the boys worked Cupertino, California. The antenna had been erected that evening atop an extension ladder, a feat which amused the boys and impressed the dads. The boys saw grayline propagation demonstrated as a station in Austin, Texas faded from hearing, and learned the value of the phonetic alphabet as AJ, a Ranger, struggled to correct his name, first copied as "OJ".

The demo went long, filling two hours quite nicely. Despite its duration, though, none of the boys dozed off,

or acted up, or showed any other sign of disinterest. After their closing devotion, several of the boys returned to the demo room to offer their thanks. The Rangers leaders were grateful for the program, describing it as one of the most interesting they'd had in a long time. Several Rangers continued to talk about it that evening, and one father-son pair may even pursue licenses of their own.

All told, the evening was a great success. The boys came away enlightened and enriched. The presenters enjoyed sharing their experiences and enthusiasm.

Kevin can be reached at:

w4kjd@qsl.net

The Royal Rangers web page is:

www.royalrangers.ag.org

**Check Into the RARS
8:00 Net Each Evening
on the 146.64 Repeater**

2 METER BAND OPENINGS: THE GOOD, THE BAD, THE UGLY

REPRINTED FROM A 1992 *EXCITER*

Gary Pearce KN4AQ

Here they come. You can't stop them.

One morning soon, you'll wake up, turn on your two-meter FM rig and find the world is turned on it's ear. The first thing you might notice is that Pennsylvania station talking on the .64 repeater. Not a station visiting FROM Pennsylvania... a station IN Pennsylvania. Or New Jersey. Or South Carolina.

Then you dial around the band. *Hey, who supercharged my radio!?* There's a signal on almost every frequency! I never heard that Charlotte repeater from my driveway before. Listen to those guys in Virginia — full quieting. What happened?

A Band Opening — that's what happened. Oh, there have been a few piddly little ones over the winter, but those of you with new licenses who just got on the air ain't heard nothing yet. Not until you hear a full-fledged two-meter band opening!

THE GOOD:

Springtime in North Carolina, and a young (or old) VHF ham's fancy turns to thoughts of DX. Overnight the cool air pools by the ground and the warm air rises. By early morning, nearly every day, we have a phenomenon known as *temperature inversion*, with a layer of warm air on top of a layer of cool. The boundary layer between the warm and cool air refracts VHF/UHF signals. Instead of making a beeline to the next galaxy (where there are very few aliens listening on HTs), they bend along just above the surface of the Earth, extending your range (and your repeater's range) up to hundreds of miles.

Band openings come in many sizes. Our daily morning opening may just carry you to Wilmington, Roanoke or Charlotte. But during a spectacular inversion (**limit: 1 per year**), you can hear forever, almost. And you can talk forever, too, if you can get a word in edgewise. It'll be busy. So don't just hang around .64 (or .88 or any local machine). Stretch your own wings. Listen on the channels with no local activity. See what you can hear (a Repeater Directory will help). And see where you can talk. And don't forget simplex, especially on a weekend. If you've been around a while and the hobby has lost some of it's sparkle, you'll feel that new-ham thrill again.

THE BAD:

Bad!? This is GREAT! What could be bad about this! Listen... I just talked through a repeater in **NEW YORK CITY** (a town famous for their authentic picante sauce). I gotta get on .64 and tell Gary! (Any Gary will do.)Geez, .64 is busy. And, hey, those guys aren't even talking to anybody around Raleigh — I don't think they're even using this repeater! Yeah, no doubt about it, there both in Winston-Salem. Hey, why don't you lower your power, you lids?!

I think you're beginning to understand. You see, the two-meter band plan and frequency coordination are designed around *normal* band conditions. A better way to say this might be *dead* band conditions, since in some parts of the year, *open* conditions are normal in NC. Repeaters are coordinated with about 100 to 150 miles between them, which is usually far enough apart that one repeater's users won't be keying up the other repeater, unless they're running too much power/antenna.

But when the band is open, all bets are off on coordination. And there's no other way to do it. If repeaters were coordinated to prevent interference during band openings, there might be one .64 repeater up around New York, then ours here in Raleigh, and we might be able to squeeze one in down by Miami. Check that repeater directory to see how many clubs you're going to ask to take their machine off the air. More and more repeaters are requiring subaudible tone so the can live closer together.

THE UGLY:

The ugly part is that a lot of hams don't know what you've just learned — or don't care. Either way, they've got their signal flying through the air to who-knows-where, lot's more than they need. They're talking through their local repeater, which is so strong in their receivers that they have no idea they're also getting into another

repeater north of them, and yet a third southeast. Or they're working DX like crazy, monopolizing a channel and tying up 5 repeaters to do it. And when the band's open, even just a little, it doesn't take that much power or antenna to do it. Five watts to a mobile whip can get you to the coast or the mountains when conditions are right.

SO WHAT DO YOU DO?

Do you sit on your hands (so you can't push-to-talk) when the band's open? Take up gardening? (It will be spring.) Buy a kW amp so you can be heard no matter what?

Hmmm, that last one's an intriguing option. But mostly, you learn how band openings work, and how you fit in.

Do you want to try DX? Listen, and see what's coming in. Check the directory, and see where that distant repeater is from. See if you can learn what other repeaters are on the same frequency. Then key down and give somebody a call, and listen to what you hear when you let go of the mic. If the band's really open, and you've got much signal at all, you might hear quite a mish-mash of heterodynes — you've keyed up several repeaters at once. But if they weren't already in use, you won't be bothering anybody if you have a short conversation. A beam or other directional antenna will give you two advantages: more signal where you want to talk, and less where you don't want to talk (this would be hard to do while mobile). Be sensitive to where your signal is going, but have your share of fun, too.

Want to stay local? Keep your power and antenna low. Since the local repeater is so strong, you won't know if you're also getting into another one across the state line. If handie-talkies can use the repeater all over town, you probably don't need 45 watts into your 5/8th wave mobile antenna to get in.

And again, remember simplex. On a repeater, it's the repeater that's doing most of the work. On simplex, it YOU (and the guy you're talking to).

And if you *really* want to get fancy, get a multi-mode rig and try SSB. Now there's a mode made for DX!

Band Openings. Coming soon to a two-meter (or 220, or 440) radio near you!

Tech/Trader Net
8:30 Saturday on 64
Two Nets In One!

Minutes

Club Meeting, February 6th, 2001

The meeting was called to order 7:37 pm by President Tim KF4RTX, after a hectic search for the building custodian to open the audio cabinet and get the microphone. Tim then welcomed our guests. Attendance count: 100.

Greg KE4PAX gave the treasurer report, and announced that the club is currently 296 members strong.

Announcements were abbreviated to allow plenty of time for the program. Thomas KF4JKQ announced the SKYWARN conference, coming Feb 17. Then introduced the speaker, George Lemons, Warnings Coordination Meteorologist for the Raleigh NWS office, who presented Spotter Training.

Additional announcements after the program:

Gary KN4AQ announced:

- He had been appointed Associate Editor of the SERA Repeater Journal (good), and would have to resign as Exciter Editor by the end of this year (not so good)

- Public Service season is approaching, and events are already scheduled:

 - MS Walks - March 31/April 1

 - ADA Tour de Cure - May 5/6

- RARS Tech Class starts Feb 26

- HAMFEST is coming April 8, and help is needed

Door prizes were awarded, but KN4AQ, not being accustomed to taking copious notes as Secretary, failed to record the winners.

respectfully submitted,

Gary KN4AQ, substitute secretary

Board Meeting, January 16th, 2001

The monthly Board meeting of the Raleigh Amateur Radio Society was held at the Forest Hills Baptist Church on January 16. The meeting was called to order by President Tim Nicholson KF4RTX at 7:32p. Members present at that time were: KN4AQ, KG4CXR, KG4CXY, K4HF, K4HM, AB4OZ, KE4PAX, KO4QH, K1RCB, KF4RTX, N4YRD and AC4ZO. The total attendance was 14.

On motion by KG4CXY, seconded by K1RCB, the minutes of the November meeting were approved as amended.

KE4PAX gave the Treasurer's report. He said that the Investment account balance is \$15,076.50; the Savings account is \$15,094.06; The checking account contains \$7,335.72; and the RARSfest account is \$11,639. Membership stands at 295.

In the Vice President's report, K1RCB said that the February meeting will be SKYWARN spotter training. Other upcoming programs are the Birthday Party/Awards Ceremony, and a program on grounding.

Committee Reports:

KN4AQ reported on FM matters. He said that KA2FWC has been working on the 444.525 repeater, and nearly has it ready to go back on the air.

KO4QH reported for the Education Department. She said that the Spring class is scheduled to begin on February 26, and mentioned an upcoming upgrade class in the area. Books have not been ordered, but they are expected to be soon.

KN4AQ reported on the Exciter. He said the roster will be published this month, and since this is a month with five Tuesdays, the deadline will be extended one week. Gary then announced that he will be stepping down as Exciter Editor at the end of the year, because he has received the appointment on SERA Repeater Journal Editor.

KG4CXY gave the Net Manager report. He reported that net activity has been extraordinarily high for the

past month. There have been record checkins on all RARS nets. The American Diabetes people have contacted him for assistance with a 2 day bike tour this spring. Also, The Multiple Sclerosis Society has requested our assistance.

KG4CXR said a few words about Membership Services. She reported a smooth operation in most areas.

KN4AQ gave a brief report on the web site. He said that the handoff to the newly elected Webmaster, KB5ZIH is complete, but updates to the page are not being made yet.

K4HM reported on the Hamfest committee. The Hamfest is scheduled for April 8. The flyers have been printed, and the tickets are ready. Preregistration is under way and going smoothly. All committee chairs are in place and ready to begin recruiting.

Old Business:

An old issue concerning the RARS shed. After a discussion, AC4ZO took an action item to report on the propriety of moving the RARS equipment to a commercial storage facility.

New Business:

KG4CXR brought up an item concerning a new member package, and explained what she had been doing in that area.

KN4AQ handled an item concerning the condition of RARS repeaters. The background was explained, and the idea put forth to purchase commercially manufactured repeaters. An FM committee was formed to evaluate the issue and report at the February meeting. The committee consists of KG4CXY, KN4AQ, N4YRD, W4BRB, KF4RTX, and AC4ZO. A meeting is planned for January 23 at 8:00 after the RARS dinner.

K1RCB addressed the schedule for the February meeting. George Lemons of the NWS has asked for two hours for his program. The meeting start time will remain 7:30.

A small committee was formed consisting of KO4QH, K4HM, and K4HF to handle the annual awards for the March meeting.

AB4OZ brought up the issue of equipment donated to the Club, and how to handle it. No action was taken by the Board, but the item will be heard at the February meeting.

Comments and Announcements:

KO4QH announced that there will be a RARS dinner on the 4th Tuesday.

With the business complete, on motion by AC4ZO, the meeting adjourned at 9:50p.

Respectfully submitted,

Jeff Wittich AC4ZO, Secretary



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Snapshots



RARS member Alan Plaks KA4NSA shows his unusual technique for getting under the limbo bar at a company picnic. Alan can blame RARS President Tim KF4RTX for this incriminating photo.

Public Service Leadership Meeting: RARS Public Service Director Bill Cole KG4CXY gathered together a tablefull of the Big Shots, the Heavy Hitters, the... people he managed to arm-twist into leading Public Service events last year. Around the table, from lower left, are Joe WA2UZO, John KG4HDT, John K4JVP, Ralph KF4NIR, Eric KG4CXW, Karl K4LNX, Kelly KD4EWG and the pony-tailed poo-bah himself, KG4CXY. Behind the camera as usual, KN4AQ.

The result: a freewheeling discussion of the state of Public Service, and a whole new crop of coordinators for this spring (see page 3!). But don't worry - that's Bill's master plan, to get as many people as possible experienced and comfortable leading these events. And these guys will be back!



Hamfest Calendar

March 10/11: Charlotte
March 25: Kinston
April 8: **RARSfest**
April 15: Morganton
May 27: Durham
June 9: Winston-Salem, Franklin VA



Courtesy of the SERA Repeater Journal